

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

- 1           1. (Currently amended): A computer-implemented method for generating a  
2 page, the method comprising:  
3                 generating a set of graphical user interfaces using a computer system that enable  
4         users to interactively construct software code that generates portlets configured to generate  
5         displays on a portal page;  
6                 displaying a first user interface in the set of graphical user interfaces using the  
7         computer system, the first user interface configured to receive access information associated with  
8 a data source declaratively specified by a user during an interactive session with the first set of  
9 graphical user interfaces to create software coding for generating portlets;  
10                 displaying a second user interface in the set if graphical user interfaces using the  
11         computer system, the second user interface configured to receive layout information  
12 declaratively specified by the user during the interactive session with the set of graphical user  
13 interfaces, the layout information indicative of a visualization of information from one or more  
14 data sources generated by a portlet when the portlet is included within a portal page;  
15                 determining a data source specification using the computer system based on  
16 [[the]] access information received from a user during an interactive session with the first user  
17 interface;  
18                 determining a layout specification using the computer system based on [[the]]  
19 layout information received from a user during an interactive session with the first user  
20 interface;;  
21                 generating software coding using the computer system that creates a portlet based  
22 on the data source specification and the layout specification, the portlet configured to create a

23 visual representation within the portal page of data specified by the data source specification  
24 according to the layout specification;

25 retrieving data for the data source using the computer system based on the data  
26 source specification and the access information;

27 determining a layout for the data within the portlet using the computer system  
28 based on the layout specification; and

29 generating using the computer system the page using the portlet.

1 2. (Original): The method of claim 1, wherein the data source specification  
2 comprises a data type for the data source.

1 3. (Original): The method of claim 2, wherein the data type comprises at  
2 least one of a spreadsheet data type, XML data type, SQL data type, web service data type, and a  
3 web page data type.

1 4. (Original): The method of claim 1, wherein the access information  
2 comprises a path to the data source.

1 5. (Original): The method of claim 4, wherein the path comprises a URL.

1 6. (Original): The method of claim 1, wherein the data source specification  
2 comprises a filtering specification that filters data retrieved from the data source.

1 7. (Original): The method of claim 1, wherein the layout specification  
2 comprises at least one of a tabular layout, chart layout, news layout, form layout, and bullet  
3 layout.

1 8. (Original): The method of claim 1, wherein determining the layout  
2 comprises formatting the retrieved data into the layout.

1 9. (Original): The method of claim 1, wherein the portal page comprises a  
2 web-based page.

1           10. (Original): The method of claim 1, wherein the page comprises a portlet.

1           11. (Currently amended): A computer-implemented method for generating a  
2 graphical user interface (GUI), the method comprising:

3           generating a set of graphical user interfaces using a computer system that enable  
4 users to interactively construct software code that creates portlets configured to generate displays  
5 on a portal page;

6           providing a display of a data source interface in the set of graphical user interfaces  
7 using the computer system that enables a user to declaratively specify access information for a  
8 data source during one or more interactive sessions with the data source interface ~~to create~~  
9 ~~software coding for generating user interface objects;~~

10          determining a declarative specification for the data source using the computer  
11 system based on access information provided by the user during an interactive session with the  
12 data source interface;

13          retrieving using the computer system data for the data source using the access  
14 information;

15          providing a display of a layout interface in the set of graphical user interfaces that  
16 enables the user to declaratively specify a layout for the data for the data source during one or  
17 more interactive sessions with the layout interface;

18          determining a layout specification using the computer system based on the layout  
19 provided by the user during an interactive session with the layout interface, the layout  
20 specification indicative of one or more visualizations of the data for the data source on the  
21 graphical user interface; and

22          generating using the computer system software coding representing that creates an  
23 object that creates a graphical user interface displaying the retrieved data according to the layout  
24 provided by the user based on the declarative specification for the data source and the layout  
25 specification.

1               12. (Original): The method of claim 11, wherein the data source interface  
2 comprises one or more data types that enables a user to specify a data type for the data source.

1               13. (Original): The method of claim 12, wherein the one or more data types  
2 comprise at least one of a spreadsheet data type, XML data type, SQL data type, web service  
3 data type, and a web page data type.

1               14. (Original): The method of claim 12, wherein determining the data  
2 comprises using the specified data type and the access information to retrieve the data for the  
3 specified data source.

1               15. (Original): The method of claim 11, wherein the access information  
2 comprises a URL.

1               16. (Original): The method of claim 11, further comprising providing a  
2 filtering interface including filtering options for the retrieved data that enables a user to  
3 declaratively specify which data to use in the generated GUI.

1               17. (Original): The method of claim 11, wherein the layout interface  
2 comprises one or more layout options that enables the user to declaratively specify a layout type.

1               18. (Original): The method of claim 17, wherein the layout type comprises at  
2 least one of a tabular layout, chart layout, news layout, form layout, and bullet layout.

1               19. (Original): The method of claim 17, further comprising providing a layout  
2 type interface that enables the user to specify how the retrieved data should be laid out in the  
3 GUI using the specified layout type.

1               20. (Original): The method of claim 11, wherein the data source interface  
2 does not include the access information for the data source before it is declaratively specified by  
3 the user.

1               21. (Original): The method of claim 11, wherein the GUI comprises a web-based page.

1               22. (Original): The method of claim 11, wherein the GUI comprises a portlet.

1               23. (Currently amended): A computer-implemented method for declaratively  
2 generating a page using an interface configure to enable users to create objects that generate one  
3 or more visual representation of data when associated with the page, the method comprising:

4               displaying the interface to a user using a computer system to enable the user to  
5 construct software code that creates objects that generate one or more visual representations of  
6 data on the page;

7               receiving using a computer system via the interface first input from [[a]] the user  
8 during one or more interactive sessions with the interface to create objects that generate visual  
9 representations of data on a page, the first input indicative of access information associated with  
10 a data source ;

11              retrieving data using a computer system from the data source using the access  
12 information;

13              determining using a computer system layout information for data associated with  
14 the data source from second input received during the one or more interactive sessions between  
15 the user and the interface, the layout information indicative of one or more visualizations of the  
16 data created by an object on a page;

17              generating software coding for one or more page objects using a computer system  
18 that create displays of information in response to the one or more interactive sessions between  
19 the user and the interface; and

20              generating a page using a computer system using the retrieved data and the layout  
21 information.

1               24. (Original): The method of claim 23, wherein the declarative specification  
2 comprises a specification of a data type for the data source.

1                25. (Original) The method of claim 23, wherein the access information  
2 comprises a path to the data source.

1                26. (Original): The method of claim 25, wherein the path comprises a URL.

1                27. (Original): The method of claim 23, wherein the declarative specification  
2 comprises a filtering specification that filters data retrieved from the data source.

1                28. (Original): The method of claim 23, wherein the page comprises a web-  
2 based page.

1                29. (Original): The method of claim 23, wherein the page comprises a portlet.